

Attorney Docket No. 021238-532

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Qinglin LI et al.

Application No.: 10/767,268

Filing Date:

January 30, 2004

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

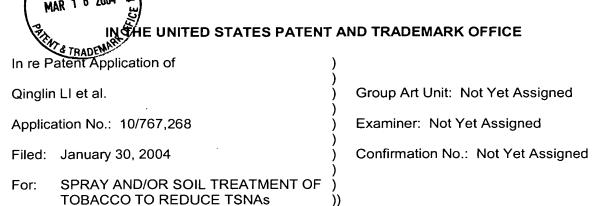
Confirmation No.: Not Yet Assigned

Title: SPRAY AND/OR SOIL TREATMENT OF TOBACCO TO REDUCE TSNAs

FIRST INFORMATION DISCLOSURE STATEMENT TRANSMITTAL LETTER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

| Sir: | | | |
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| he al | Enclosed is a FIRST Information Disclebove-identified patent application. | osure | Statement and accompanying form PTO-1449 for |
| | | C.F.R enclo ne fee 02-4 closed any a | § 1.17(p) is also enclosed. sed. of \$180.00 (1806) as set forth in 37 C.F.R. |
| | | Res | pectfully submitted, |
| | | BUF | RNS, DOANE, SWECKER & MATHIS, L.L.P. |
| Alexa | Box 1404 andria, Virginia 22313-1404 836-6620 | Ву | Peter K. Skiff Registration No. 31,917 |



FIRST INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed. However, copies of the listed U.S. patents are not enclosed since it is no longer required according to the July 11, 2003 waiver of the requirement for copies of cited U.S. patents and U.S. patent application publications in national patent applications filed after June 30, 2003 and international applications entering the national stage under 35 U.S.C. § 371 after June 30, 2003.

The documents are being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later. Since these documents are being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.

To assist the Examiner, the document is / documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date <u>3-16-04</u>

By: Peter K. Skiff

Registration No. 31,917

P.O. Box 1404 Alexandria, Virginia 22313-1404 (703) 836-6620

VA 73214.1

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| Application Number | 10/767,268 | |
| Filing Date | January 30, 2004 | |
| First Named Inventor | Qinglin LI et al. | |
| Examiner Name | Not Yet Assigned | |
| Attorney Docket Number | 021238-532 | |

| | U.S. PATENT DOCUMENTS | | | |
|----------------------|-----------------------|-------------------------|---|-------------------------------------|
| Examiner Initials | Document Number | Kind Code (if known) | Name of Patentee or Applicant of Cited Document | Issue/Publication Date (MM-DD-YYYY) |
| | 4,581,057 | | Noodén | 04-08-1986 |
| | 4,671,816 | | Bleisener et al. | 06-09-1987 |
| | 4,943,315 | | Schulz et al. | 07-24-1990 |
| | 5,201,931 | | Abrams et al. | 04-13-1993 |
| | 5,391,568 | | Chung | 02-21-1995 |
| | 5,627,132 | | LeBeau | 05-06-1997 |
| | 5,829,449 | | Hersh et al. | 11-03-1998 |
| | 5,851,953 | | Pehu et al. | 12-22-1998 |
| | 6,138,683 | | Hersh et al. | 10-31-2000 |

| | NON-PATENT LITERATURE DOCUMENTS | | |
|----------------------|--|--|--|
| Examiner Initials | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | |
| | "Nitrites", http://ace.orst.edu/info/extroxnet/faqs/additive/preserca.htm (1997) | | |
| | Anna Wiernik et al., "Effect of Air-Curing on the chemical Composition of Tobacco", Recent Adv. Tob. Sci., (1995), 21: 39-80. | | |
| - | Jaw-Neng Lin et al., "Effect of exogenous H ₂ O ₂ on leaf senescence Effect of oxidative Stress caused by hydrogen peroxide on senescence of rice leaves", http://ejournal.sinica.edu.tw/bbas/content/1998/3/bot93-03.html | | |
| | Con Baker, et al., "Production of Extracellular Phenolic Antioxidants Provdes a Buffer Against Low-Level Buildup of Ros in Plants", http://www.nps.ars.usda.gov/publications/publications.htm?SEQ_NO_115=117167 | | |
| | Przemyslaw WOJTASZEK, "Oxidative burst: an early plant response to pathogen infection", <i>Biochem. J.</i> , (1997) 322:661-692 | | |
| | J. Brian Mudd, "Biochemical Reactions of Ozone in Plants 1", PSW-GTR-164; http://www.rlf.psw.fs.fed.us/pubs/psw-gtr-164/fulltext/mudd/mudd.html | | |
| | Yoshiko Miyagawa et al., "Evaluation of the Defense system in Chloroplasts to Photooxidative Stress Caused by Paraquat Using Transgenic Tobacco Plants Expressing Catalase from <i>Escherichia coli</i> ", <i>Plant Cell Physiol</i> , 41(3): 311-320 (2000) | | |
| | James F. Dat et al., "Changes in Salicylic Acid and Antioxidants during Induced Thermotolerance in Mustard Seedlings", <i>Plant Physiol.</i> (1998) 118: 1455-1461 | | |
| | Ron Mittler et al., "Transgenic tobacco plants with reduced capability to detoxify reactive oxygen intermediates are hyperresponsive to pathogen infection", PNAS, November 23, 1999, Vol. 96, No. 24, pp. 14165-14170 | | |
| | EXTOXNET, Extension Toxicology Network, Pesticide INformation Profiles – Paraquat - http://ace.orst.edu/info/extoxnet/faqs/additive/preserca.htm | | |
| | Benzie and Strain, <i>Meth. Enzymology</i> 299: 15-27 (1999) | | |
| | R. Anderson, "Assessment of the roles of vitamin C, vitamin E, and beta-carotene in the modulation of oxidant stress mediated by cigarette smoke-activated phagocytes", <i>American Journal of Clinical Nutrition</i> , 1991 Jan; 53 (1 Suppl.): 358 S-361 S. | | |
| | Padma et al., "Anticarcinogenic effect of betel leaf extract against tobacco carcinogens", Cancer Letters, 1989 Jun; 45 (3): 195-202 | | |
| | A.B. Weitberg et al., "Oxygen radicals potentiate the genetic toxicity of tobacco-specific nitrosamines", Clinical Genet. 1993 Feb; 43 (2): 88-91 | | |

| Examiner | Date |
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| Signature | Considered |
| Signature | Considered |
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^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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|----------------------|---|
| Examiner Initials | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| | T. Rundlof et al., "Potential nitrite scavengers as inhibitors of the formation of N-nitrosamines in solution and tobacco matrix systems", <i>Journal of Agricultural Food Chemistry</i> , 2000 Sep; 48 (9): 4381-8 |
| | A.B. Weitberg et al., "Effect of vitamin E and beta-carotene on DNA strand breakage inducted by tobacco-specific nitrosamines and stimulated human phagocytes", <i>Journal of Exp. Clinical Cancer Research</i> , 1997 Mar; 16 (1): 11-4 |
| | A.B. Weitberg et al., "The effect of epigallocatechin galleate and sarcophytol A on DNA strand breakage induced by tobacco-specific nitrosamines and stimulated human phagocytes", <i>Journal of Exp. Clinical Cancer Research</i> , 1999 Sep; 18 (3): 433-7 |
| | S.S. Hecht, "DNA adduct formation from tobacco-specific N-nitrosamines", <i>Mutation Research</i> , 1999 Mar 8; 424 (1-2): 127-42 |
| | Camia Borek, Ph.D., "Aging Gracefully with Antioxidants", from the March 1998 Issue of Nutrition Science News |

| Examiner | Date | |
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